



LM3303/LM3403 Quad Operational Amplifiers

General Description

The LM3303 and LM3403 are monolithic quad operational amplifiers consisting of four independent high gain, internally frequency compensated, operational amplifiers designed to operate from a single power supply or dual power supplies over a wide range of voltages. The common mode input range includes the negative supply, thereby eliminating the necessity for external biasing components in many applications.

Features

- Input common mode voltage range includes ground or negative supply
- Output voltage can swing to ground or negative supply

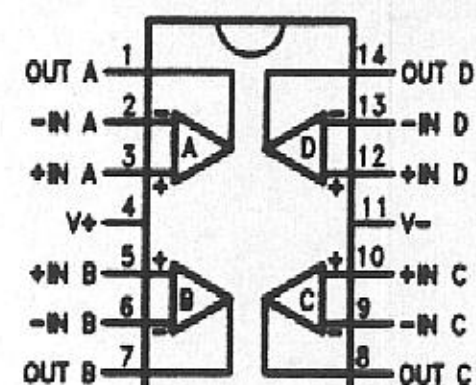
- Four internally compensated operational amplifiers in a single package
- Wide power supply range single supply of 3.0V to 36V dual supply of $\pm 1.5V$ to $\pm 18V$
- Class AB output stage for minimal crossover distortion
- Short circuit protected outputs
- High open loop gain 200k
- LM741 operational amplifier type performance

Applications

- Filters
- Voltage controlled oscillators

Connection Diagram

14-Lead DIP and SO-14 Package



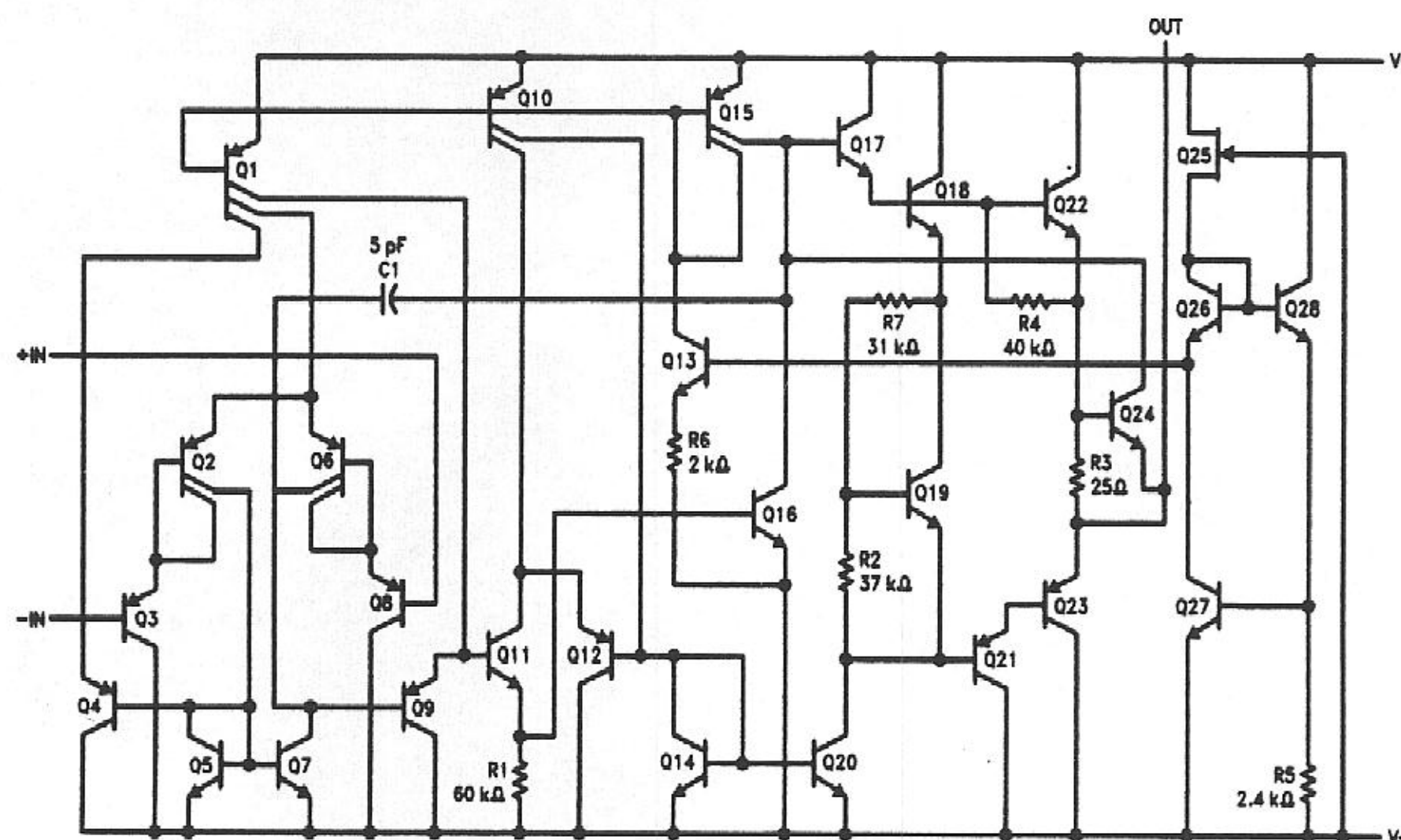
Top View

TL/H/10084-1

Order Information

Device Code	Package Code	Package Description
LM3303J	J14A	Ceramic DIP
LM3303N	N14A	Molded DIP
LM3303M	M14A	Molded Surface Mount
LM3403J	J14A	Ceramic DIP
LM3403N	N14A	Molded DIP
LM3403M	M14A	Molded Surface Mount

Equivalent Circuit (1/4 of Circuit)



TL/H/10084-2

Absolute

If Military/Ae
please conta
Office/Distrib

Storage Temp
Ceramic DIP
Molded DIP

Operating Ten
Industrial (LI
Commercial

Lead Tempera
Ceramic DIP
Molded DIP
(Soldering,

LM3303 Electrical

Symbol	
V_{IO}	Input
I_{IO}	Input
I_{IB}	Input
Z_I	Input
I_{CC}	Supp
CMR	Comr
V_{IR}	Input
PSRR	Power Reje
I_{OS}	Outp (Per
A_{VS}	Larg
V_{OP}	Outp
TR	Tran Res
BW	Band
SR	Slew